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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,791	07/28/2003	Seiji Tawaraya	TJK/401	5215

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EXAMINER	
SHAH, MANISH S	
ART UNIT	**PAPER NUMBER**
2853	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/628,791	TAWARAYA ET AL.	
	Examiner	Art Unit	
	Manish S. Shah	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,8,10,11 and 13-21* is/are rejected.

7)☒ Claim(s) *2,3,7,9 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 4, 6, 8 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirick (# US 3674729) in view of Roth (# US 5889084).

Mirick discloses a correction ink for micro defect of a color pattern including a coloring agent (see Examples; column: 2, line: 47-60), a polymer (column: 2, line: 35-54) and a solvent, wherein an amount of the solvent is from 40 to 60 % by weight (column: 2, line: 1-6; line: 30-40), and viscosity of the ink is from 40 cps to 300 cps (see Examples). They also disclose that ink further including polymerization inhibitor (column: 5, line: 40-60). They also disclose that the carbon black or lamp black may be incorporated as a coloring pigment to match the color of the correction fluid, wherein coloring pigment is iron blue (see Examples).

Mirick differs from claim of the present invention is that (1) the ink includes monomer having two or more reactive functional group, wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink. (2) The static surface tension of the ink at 25 degree C is 20 mN/m to 45 mN/m.

Roth teaches that to get the chemically resistant and smear resistant printed image, ink includes monomer having two or more reactive functional group (see Abstract; column: 3, line: 40-55), wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink (see Example: 1; column: 13, line: 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the correction fluid of Mirick by the aforementioned teaching of Roth in order to have the chemically resistant and smear resistant printed image.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate the ink with the surface tension from 20 to 45 mN/m, since it has been held that it is not inventive to discovering and optimum value or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA1955).

2. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirick (# US 3674729) in view of Roth (# US 5889084).

Mirick discloses a color filter, wherein a micro defect in a color pattern is corrected by filling with cured product of correction ink, including a coloring agent (see Examples; column: 2, line: 47-60), a polymer (column: 2, line: 35-54) and a solvent, wherein an amount of the solvent is from 40 to 60 % by weight (column: 2, line: 1-6; line: 30-40), and viscosity of the ink is from 40 cps to 300 cps (see Examples). They also disclose that ink further including polymerization inhibitor (column: 5, line: 40-60). They also disclose that the carbon black or lamp black may be incorporated as a

coloring pigment to match the color of the correction fluid, wherein coloring pigment is iron blue (see Examples).

Mirick differs from claim of the present invention is that ink includes monomer having reactive functional group.

Roth teaches that to get the chemically resistant and smear resistant printed image, ink includes monomer having two or more reactive functional group (see Abstract; column: 3, line: 40-55), wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink (see Example: 1; column: 13, line: 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the correction fluid of Mirick by the aforementioned teaching of Roth in order to have the chemically resistant and smear resistant printed image.

3. Claims 13-19 & 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirick (# US 3674729) in view of Roth (# US 5889084).

Mirick discloses a method for correcting a micro defect in a color pattern, and a process for producing a correction ink for micro defect of a color pattern including a coloring agent (see Examples; column: 2, line: 47-60), a polymer (column: 2, line: 35-54) and a solvent, wherein an amount of the solvent is from 40 to 60 % by weight (column: 2, line: 1-6; line: 30-40), and viscosity of the ink is from 40 cps to 300 cps (see Examples). They also disclose that ink further including polymerization inhibitor (column: 5, line: 40-60). They also disclose that coloring agent dispersion mixed with

varnish (pine oil) (see Examples). They also disclose that the carbon black or lamp black may be incorporated as a coloring pigment to match the color of the correction fluid, wherein coloring pigment is iron blue (see Examples).

Mirick differs from claim of the present invention is that ink includes monomer having two or more reactive functional group in one molecule.

Roth teaches that to get the chemically resistant and smear resistant printed image, ink includes monomer having two or more reactive functional group (see Abstract; column: 3, line: 40-55), wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink (see Example: 1; column: 13, line: 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the correction fluid of Mirick by the aforementioned teaching of Roth in order to have the chemically resistant and smear resistant printed image.

4. Claims 1, 4, 6, 8 & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma et al. (# US 5480920) in view of Roth (# US 5889084).

Sharma et al. discloses a correction ink for micro defect of a color pattern including a coloring agent (column: 3, line: 40-60; column: 4, line: 15-20), a polymer (column: 2, line: 35-54) and a solvent, wherein an amount of the solvent (acetone) is from 15 to 25 % by weight (column: 4, line: 1-10), and viscosity of the ink is from 200 cps to 800 cps (column: 4, line: 30-33). They also disclose that ink further including polymerization inhibitor (column: 4, line: 15-24). They also disclose that the carbon

black or lamp black may be incorporated as a coloring pigment to match the color of the correction fluid, wherein coloring pigment is yellow oxide and raw amber (column: 4, line: 20-24).

Sharma et al. differs from claim of the present invention is that (1) the ink includes monomer having two or more reactive functional group, wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink. (2) The static surface tension of the ink at 25 degree C is 20 mN/m to 45 mN/m.

Roth teaches that to get the chemically resistant and smear resistant printed image, ink includes monomer having two or more reactive functional group (see Abstract; column: 3, line: 40-55), wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink (see Example: 1; column: 13, line: 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the correction fluid of Sharma et al. by the aforementioned teaching of Roth in order to have the chemically resistant and smear resistant printed image.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate the ink with the surface tension from 20 to 45 mN/m, since it has been held that it is not inventive to discovering and optimum value or workable ranges by routine experimentation. *In re Aller*, 105 USPQ 233 (CCPA1955).

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma et al. (# US 5480920) in view of Roth (# US 5889084).

Sharma et al. discloses a color filter, wherein a micro defect in a color pattern is corrected by filling with cured product of correction ink, including a coloring agent (column: 3, line: 40-60; column: 4, line: 15-20), a polymer (column: 2, line: 35-54) and a solvent, wherein an amount of the solvent (acetone) is from 15 to 25 % by weight (column: 4, line: 1-10), and viscosity of the ink is from 200 cps to 800 cps (column: 4, line: 30-33). They also disclose that ink further including polymerization inhibitor (column: 4, line: 15-24). They also disclose that the carbon black or lamp black may be incorporated as a coloring pigment to match the color of the correction fluid, wherein coloring pigment is yellow oxide and raw amber (column: 4, line: 20-24).

Sharma et al. differs from claim of the present invention is that ink includes monomer having reactive functional group.

Roth teaches that to get the chemically resistant and smear resistant printed image, ink includes monomer having two or more reactive functional group (see Abstract; column: 3, line: 40-55), wherein the amount of the monomer is from 15% to 65% by weight of the total amount of the correction ink (see Example: 1; column: 13, line: 1-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the correction fluid of Sharma et al. by the aforementioned teaching of Roth in order to have the chemically resistant and smear resistant printed image.

Allowable Subject Matter

6. Claims 2-3, 7, 9 & 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

(1) With respect to claim 2, the τ value is 0.3 to 1.3, when γ value is 10 and τ value is 4.0 to 10.0 when γ value is 100.

(2) With respect to claim 3, the τ value is 0.3 to 10, when γ value is 10 to 100 having slop of 0.075 to 0.15 and degree of 0.8 to 1.1.

(3) With respect to claim 7, the correction ink having polymer, which is diallylphthalate prepolymer.

(4) With respect to claim 9, the optical density is 1.0 or more in the measuring wave range of 400 nm to 760 nm when a layer thickness at curing is less than 1.9 micrometer.

(5) With respect to claim 12, the difference in level between a corrected part by the ink and surrounding thereof is –3 to +5 micrometer.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

8/17/05